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...itted to the

...the
Homoeopathic Medical College
of
Pennsylvania

On the first day of February
One thousand eight hundred and fifty-seven

By
Alvah E. Keyes
of
Westfield New-York

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1857

An Essay

on

The Breast and its Diseases

Respectfully submitted to the

Faculty

of the

Homeopathic Medical College

of

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On the first day of February

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By

Alvah E. Keyes

of

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Gentlemen

Among the various topics that present themselves before the mind of the Student for his investigation we finds it difficult to select one from among them that can claim precedence in importance over all others demanding his special attention and study

This is doubtless as it should be. Duty requires that every disease every organ every symptom should be critically examined and carefully studied together with an acquaintance as to the proper treatment of the same

But as it is made the duty

of every Student presenting himself before the faculty and asking for the honor of the College to prepare a Thesis upon some subject connected with the profession. I have endeavored to comply with the requirement and have selected for my Thesis the above subject than which there is none perhaps more deeply interesting; it is fraught with deep interest when we remember that it is our mothers our wives our daughters who are the subjects of its disease.

The first loved the dearest and the fairest of all whom we are ever called upon to administer in disease.

This disease is not merely confined to them but it poisons the source and destroys the fountain from which

we first draw sustenance; Nature's pantry in which she stores the pabulum for her offspring.

To have a thorough knowledge of its anatomy its physiological functions and its diseases becomes a subject of no secondary importance. First then the Anatomy of the breast.

These organs are two in number one on either side of the chest situated anterior and laying directly upon the pectoral muscles. The breasts are glandular bodies and for sake of description are divided into two parts the external and internal. The external is composed of the nipple the areola and the skin. The nipple is a coned shaped body situated a little below the center of

the gland. the length of the nipple is from one half to three fourths of an inch the color of this organ varies with the age of the individual and also under different states of the uterus

According to Sir Astley Cooper the following changes may be observed from infancy to old age in infancy it is of a pinkish red; at puberty of a more florid red in Young women of a slightly brownish red. but in pregnancy it becomes of a very dark color in old age it becomes again of the hue of the surrounding skin

At the apex of the nipple there is a depression which is perforated with numerous openings the terminations of lactiferous tubes On the surface of the

nipple there are a large number of papilla which make their appearance soon after puberty previous to this period the nipple is smooth the papilla increase in size as the female advances in life particularly during lactation and until the age of forty five or fifty when the surface becomes wrinkled and has a warty appearance. The shape of the nipple is also altered during lactation from the cone shape with the apex projecting it becomes wrinkled as it were and the base seems to project while the part becomes contracted that is attached to the breast.

The nipple is of great importance as it is the medium through which the milk secreted by the gland is

obtained by the child. Surrounding the nipple we find a dark circle somewhat raised above the rest of the integument. This is the Areola. The color of the Areola also varies similar to the changes spoken of in the nipple. During lactation the Areola is about two inches in diameter; the dark color of the Areola is owing to a deposit of pigment within the cells that lay beneath the Epidermis.

The change of the color of the Areola is looked upon as one of the signs of pregnancy but it cannot be relied upon as various diseases of the Uterus produce the same change in its color. This change of color is brought about by the sympathetic connection

that exist between the areola and the breast causing an increased flow of blood to the spot from which the pigment is deposited within the cells. Small papillae may be seen projecting upon the surface of the areola these papillae are the orifices of glandular bodies found beneath the dermis. their office seems to be to furnish a secretion to lubricate the part and prevent excoriation during lactation their size is very much increased during this period.

The skin next demands our attention the only difference between this and the skin of other parts of the body is that it is whiter and smoother the whiteness as well as

the smoothness depending upon the dense fascia which lies beneath the dermis and also entering as it were within its meshes.

I come now to notice the external parts of the organs of the breast. These although apparently complexed are simple in their structure. They are composed of glandules sacculi tubes nerves arteries veins absorbants or lymphatic and minute follicules or milk cells together with the fat or cellular tissue. The whole structure is enclosed in a fascia which serves to protect as well as to keep the glands in their proper position by means of fibres thrown out anteriorly and laterally

into the dermis and posteriorly with the pectoral muscles these glandules are also bound together by the ramifications of the lactiferous tubes which anstomose with each other although they have no internal communication In speaking of the nipple I mentioned a depression at its apex as being the termination of the lactiferous tubes. These openings vary in number in different subjects from eight to twenty in giving a description of these I shall begin at their outlet and trace them to their origin.

The opening is very small externally but as one reach the basis of the nipple the tube enlarges and forms a reservoir within the areola which

is filled with milk during lactation
Nature seems to have made this arrange-
ment for the special purpose of
providing a constant supply for the
child when first put upon the breast
until the stimulus thus set up should
cause the secretion to flow from the
gland. From each of these acervuli
five or six tubes start which soon
divide into smaller tubes and these
subdivide into smaller tubes until
they have been traced to distinct
lobuli in the various glandules and
from these lobuli to minute follicles
in their dimensions resembling very much
the ramifications of the bronchial tubes

These tubes are lined by an areolar
membrane which secretes a thin aqueous

The follicles in which the lactiferous tubes have their origin are lined by epithelium cells these cells being the agents which secrete the milk From these cells may be traced absorbent vessels whose office seems to be to remove the more fluid portion of the secretion and thus to enrich the milk and also to prevent an undue accumulation within the gland. These tubes are covered externally by the fascia which encloses the glandules

The arteries which supply the breast are principally the Axillary and Mammary. The Axillary passes posteriorly to the gland while the Mammary passes anteriorly these arteries send off branches which

anastomose freely with each other thus supplying all parts of the organ by dividing and subdividing into capillaries which ramify over the surface of the follicules thus bringing the circulation into immediate connection with the secreting agents. It is from these capillaries that the milk is secreted by the epithelium cells that line the follicules

The veins are somewhat larger than the arteries and accompanies the arteries divide into capillaries and are also spread over the follicules their office being to return the blood from the arteries that is not converted into Milk The veins in the superficial parts of the organ are very numerous

and during lactation as well as in various diseases of the organ it becomes very much enlarged having the appearance of varicose veins

The nerves of the breast are derived from the dorsal and great sympathetic The dorsal nerves supply the parts with motion and sensation but it is through the great sympathetic that the secretion of milk is induced under the stimulus of the uterus

Besides the parts already described there is a cellular or adipose structure distributed throughout the gland and it is through this structure that the arteries veins nerves and absorbents are to be traced

I have thus briefly given a

description of the Anatomy and of the physiological functions of the breast I shall now notice some of the diseases to which it is subject - First then like all other organs it is liable to inflammation both of the acute and chronic form. The inflamation if not checked in its first stage passes on to the second stage or suppuration and manifests itself in the form of an abscess Acute Mammary Abscess This abscess is generally caused by a large accumulation of milk or it may arise from taking cold The patient first complains of rigors, pain and tumefaction soon follow. The breast becomes inflamed and discolored and very sensitive to the touch or

that the patient cannot lean the head
pressure from the clothing. The swelling
and inflammation frequently extend to
the axilla the pain is severe and
constant and when pus has formed
there is a throbbing sensation which
symptom is always present in the
formation of pus.

The first object of the physician
should be to produce resolution which
sometimes may be done by the ad-
-ministration of the proper remedies
for inflammation. As soon as pus
has formed the abscess should be
opened and the pus evacuated.
The parts should now be dressed
with lint and Tinct. Opii. Camph. and
Cantharides be given according to the

symptoms. Cantoral applications should never be used in this disease. Having passed over the acute form of abscess I come now to the Chronic abscess which is more difficult to diagnose. The acute form of abscess generally passes through the various stages in the course of from one to three weeks. the symptoms are well marked and the diagnostic signs unmistakable but in the Chronic form these symptoms are very obscure. This form of abscess is generally found in persons of a scrofulous deathesis. There is none of the redness and heat observed in the acute form but simply a tumor with little or no pain. The tumor continues to

sometimes for months before the patient or physician is aware of the nature of the disease. As the symptoms usually attendant upon the formation of pus are not present and it is mistaken for a malignant tumor perhaps until an operation is attempted when by cutting into the parts the physician finds to his surprise and mortification that it is simply an abscess. In this state of things the constitution becomes very much affected and the treatment consists in correcting the system by the administration of the proper remedies in accordance with the symptoms.

This abscess like the

acute should be opened as soon as it was ascertained that the pus had formed In opening an abscess the knife should be carried directly into the spot and the cutting done from within outwards

I come now to notice another form of disease of the breast the Chronic humor which is usually found in females between the ages of eighteen and thirty five although it may appear at any period of life. The patient first discovers a small hard humor within the gland which is very movable and easily circumscribed; at first there is no pain experienced but in the course of its growth the patient

Sometimes complains of a peculiar pain which extends from the breast to the shoulder and arm. This tumor is of very slow growth existing in some cases for years without any serious inconvenience to the patient. Patients laboring under this form of disease are very liable to think it a cancer and the advice of the physician will be asked in regard to the nature of the tumor. In such a case he need not hesitate to assure the patient that there is nothing to fear from it and that simply in removing it all will be well. As the tumor continues to grow the surface becomes lobulated and

Sometimes there may be swelling of the axilla but this only sympathetic as there is no connection between the tumor of the breast and the axilla and as soon as the tumor of the breast is removed the swelling in the axilla disappears. There is one peculiarity about this tumor that may always distinguish it from Cancer it never becomes attached to the Chest but is movable within the gland. Which is not the case in Cancer. The treatment consists in removing the tumor with the knife which may done very readily care being observed not to remove any more of the parts than is affected by the tumor. After

its removal the parts should be brought together and secured by adhesive straps. The wound will usually heal by the first intention These tumors are usually caused by some disturbance of the function of the uterus through the sympathetic connection that exists between that organ and the breast. The after treatment consists in correcting that disturbance by the internal administration of proper Homeopathic remedies as indicated by the symptoms.

There are other forms of the tumors of the breast spoken of by some writers but I pass them over and come now to notice

Scirrhus or Cancer of the breast.

This disease is of a malignant character manifesting itself usually in persons in advanced life. Most writers agree in considering it an hereditary disease transmitted from parent to child. This form of Cancer has been termed Scirrhus from the hardness of the tumor and its uneven surface. The disease first manifests itself by the appearance of a small hard tumor at first smooth and moveable but becomes uneven and knotty and as the tumor increases in growth it becomes attached to the integument and also to the parts beneath so that it cannot be moved. The

pain is severe and cutting and seems to follow the course of the lymphatics running to the axilla or a short time there may be observed small hards or knots running from the tumor to the axillary glands. As the tumor enlarges the breast seems to swell the veins enlarge the nipple retracts and finally we have an ulcer making its appearance with hard shining edges. The discharge from this ulcer is not very copious but has an extremely fetid odor. At this stage of the disease the patient complains of a feeling of heaviness with constant lancinating pains extending from

the breast down to the shoulder and arm with rheumatic pains in other parts of the body. The constitution becomes more or less affected the face has a livid hue the arm and the affected side becomes very much swollen and its movements are impeded and finally death follows.

These tumors sometimes exist for years without developing any of the symptoms I have just enumerated. The direct cause is sometimes traced to a blow or some external injury upon the parts but at other times no assignable cause could be given for its appearance.

Treatment — There is a diversity of opinion in regard to the course of treatment to be pursued in this disease some recommending an operation with the knife for the removal of the tumor at once while others claim to have removed it by the application of caustic or Both neither of these practices should be adopted as experience has clearly proven that they tend only to shorten the life of the patient and no good results to the patient or credit to the surgeon. Therefore I would not operate unless it be on a patient of apparently healthy constitution and in its first stage before the lymphatics become involved

The Physician should endeavour to make the patient as comfortable as possible by studying the symptoms carefully and if possible to alleviate the pain which may be done by the internal use of proper remedies although this disease is generally considered incurable.

It remains for the Student of that beautiful Law "Similia Similibus Curantur" to ascertain and reveal to the world an antidote to this of all diseases (to which mankind is heir to) the most to be dreaded.